United States of America

Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number ST02403NY-D

This certificate, issued to

Delta Engineering

13 DRBA Way

New Castle County Airport New Castle, Delaware 19720

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 25 of the Tederal Aviation Regulations.

Original Product - Type Certificate Number:

A20WE

Make:

Boeing

Model:

747-400 Series

Description of Type Design Change:

Update of an existing Panasonic System 3000 in accordance with Delta Engineering Master Data List 0107-06195-2172 Revision D dated Mar. 6, 2009 or later FAA approved revisions to Delta Engineering Master Data List previously listed. The Instructions for Continued Airworthiness 0707-06201-2172 as listed on the Master Data List is required with this installation.

Limitations and Conditions:

- 1. If the holder agrees to permit another person to use the certificate to alter the product, the holder shall give the other person written evidence of that permission.
- 2. Compatibility of this design change with previously approved modifications must be determined by the installer.

This certificate and the supporting data which is the basis for approval shall remain in effect surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application:

January 13, 2008

Date reissued:

December 11, 2008

Date of issuance:

April 10, 2008

Date amended:

March 9, 2009



Jonathan E. Moritz

DAS Administrator

Delta Engineering, DAS-800728-NE

By direction of the Administrator

(Title)

United States of America

Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number ST02403NY-D

Date of Amendment: March 9, 2009

Limitations and Conditions (continued):

- 3. This modification may not be installed after August 30, 2010 unless (1) previously approved electrical wiring interconnection system (EWIS) instructions for continued airworthiness (ICA) have been evaluated and determined to be adequate for this installation by the FAA, or (2) revised EWIS ICA have been approved by the FAA Oversight Office. (Refer to §26.11)
- 4. The Panasonic Avionics Corporation System 3000 update must interface with the following listed required existing components/systems, which must be installed in a manner acceptable to the FAA Administrator, The below listed required existing components/systems are not approved by this STC.

Required existing components/systems:

Component/System	Manufacture	Model	Additional Requirements
In-Flight Entertainment System	Panasonic	System 3000	FAA STC ST02534AT for configuration 1 of Master Data List 0107-06195-2172 FAA STC ST02531AT for configuration 2 of Master Data List 0107-06195-2172
Cabin Configuration	JADE		FAA STC ST01829SE

Certification Basis:

Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for the Boeing 747-400 Series aircraft with this STC is as follows:

- a. The type certification basis for Boeing 747-400 Series airplanes is shown on TCDS A20WE for parts **not changed or not affected** by the change.
- b. The certification basis for parts **changed or affected** by the change since the reference date of application, Jan. 6, 2009 is based upon part 25 as amended by Amendment 25-122. Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for this modification was determined to be as shown on the TCDS A20WE except the regulations listed below:

Section	Title	At Amendment
25.831	Ventilation	25-89
25.853	Compartment interiors	25-116
25.869	Fire protection: systems	25-113
25.981	Fuel tank ignition prevention	25-102
25.1307	Miscellaneous equipment	25-72
25.1351	General	25-72
25.1353	Electrical equipment and installations	25-113
25.1431	Electronic equipment	25-113
25.1529	Instructions for Continued Airworthiness	25-54
25.1557	Miscellaneous markings and placards	25-72
26.11	EWIS	26-0
26.47	AASR	26-1